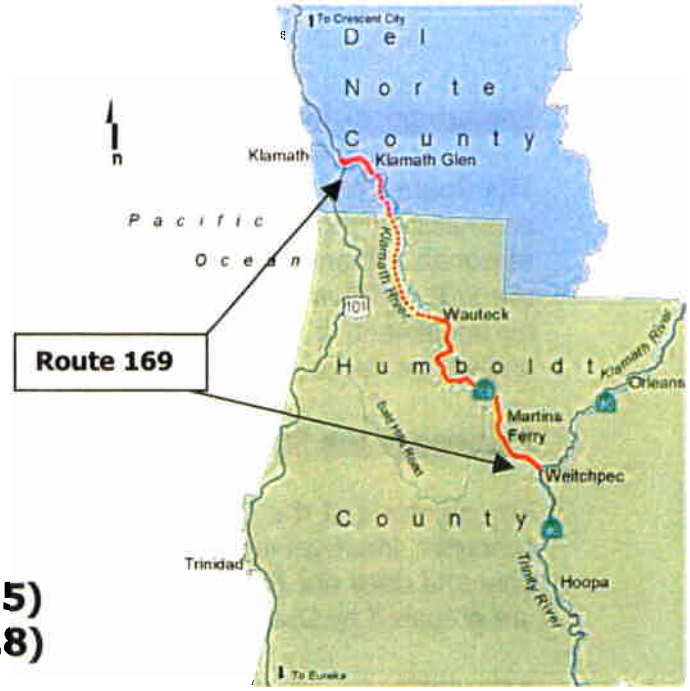
ROUTE CONCEPT REPORT

ROUTE 169 CORRIDOR

01-DN-169-KP R0.0/13.7 (PM R0.0/8.5)
01-HUM-169-KP 0.0/54.4 (PM 0.0/33.8)

State Route 169



All information in this Route Concept Report is subject to change as conditions change and new information is obtained.

I approve this Route Concept Report as an analysis and conceptual long-range guide for Caltrans, our Regional Planning Partners, local entities, and the public.

Approval Recommended:

2/21/03

CHARLIE FIELDER Date
Deputy District Director
Program/Project Management

Approval Recommended:

2/20/03

CHERYL S. WILLIS Date
Deputy District Director
Planning

Approved:

2/24/03

RICK KNAPP Date
District Director
District I

FEBRUARY 2003

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ROUTE CONCEPT REPORT

Statement of Planning Intent

The Route Concept Report (RCR) is a planning document which describes the Department's conceptual improvement options for a given transportation route or corridor. Considering reasonable financial constraints and projected travel demand over a 20-year planning period, the RCR considers transportation facility needs for each route or corridor. The RCR is a tool for implementing interregional and statewide continuity of the State's transportation network, and will be updated as needed as conditions change, or new information is obtained.

Purpose of the Route Concept Report

The objective of the RCR is to have local, regional, and state consensus on route or corridor concepts, improvement goals, and strategies. This document provides concept information only and does not determine policy nor establish a course of action. Route Concept Reports are prepared by District staff in cooperation with local and regional agencies.

Assumptions

The following assumptions form the basis for the development of Route Concept Reports:

1. The relative importance of State highways in the District is generally based on functional classification. In general, higher priority is given to major improvements on principal arterial routes as compared to minor arterials and collectors.

2. State highways with improvement concepts must have realistic concept levels of service. Concept levels of service are not established on State highways that will only be maintained (since improvements would not be made to address level of service concerns).

3. Level of service calculations are based on the 1997 Highway Capacity Manual (see Appendix A).

4. Determinations of future level of service for State highways in District 1 are based in part upon Statewide and Regional forecasts of State highway travel developed by the Department.

5. Route concepts apply generally to an entire route or corridor, unless there are overriding considerations (e.g. a major change in function along the route or feasibility concerns).

6. Major projects will be developed to meet design standards acceptable to the Federal Highway Administration in order to receive Federal funding for projects. Otherwise, a "design exception" must be secured during the project development process.

7. Safety projects will be pursued on an on-going basis in order to be responsive to safety concerns as they are identified.

8. No planned or programmed improvements were assumed to be complete in analyzing present and future operating conditions. The Route Concept Report details programmed improvements in the 1998 STIP and the 1998 STIP Amendment.

9. Environmental documents are not required for Route Concept Reports. Individual improvement projects identified in Route Concept Reports will follow established environmental processes when development is proposed as required by law.

ROUTE CONCEPT REPORT

ROUTE 169

01-DN-169-KP RO.0/13.7 (PM RO.0/8.5)

01-HUM-169-KP 0.0/54.4 (PM 0.0/33.8)

I. ROUTE CONCEPT AND RATIONALE

FACILITY CONCEPT

The concept for Route 169 in Del Norte and Humboldt Counties is 2-lane conventional highway on existing alignment.

Route 169 traverses portions of southern Del Norte and northern Humboldt Counties along the north bank of the Klamath River. The route has two constructed segments separated by approximately 29 kilometers (18 miles) of an unconstructed section. Route 169 extends from U.S. 101 near Klamath to Route 96 near Weitchpec as designated by the Legislature of the State of California. Only a portion of this designated Route has been adopted, being the portion from the So. Fork of Ah Pah Creek to Route 96, as adopted in 1971. This includes a portion of the unconstructed section although no final alignments have been established for any portion of the unconstructed section. The Del Norte County portion of the Route is functionally classified as a Rural Major Collector as is the Humboldt County segment from Martin's Ferry to Weitchpec. On May 29, 2001 the Federal Highway Administration approved a change in the functional classification to designate all portions of the Route as a Rural Major Collector. This highway Route functions as the primary Route serving the Yurok Tribal Nation, is located entirely within the boundaries of the Yurok Indian Reservation, serves as a local service route for a few small communities, and provides access to the Klamath River for Tribal needs, recreation and sport fishing purposes.

LEVEL OF SERVICE CONCEPT

No concept level of service (LOS) has been selected for Route 169. Route 169 currently operates at a "C" LOS during peak hour periods and is expected to continue at LOS "C" through the year 2020. However, considering the route's function and LOS, major improvements are not anticipated.

ROUTE CONCEPT FUNCTION

This Route Concept should serve as a guide for long range planning of Route improvements. It will protect the state's investment in Route 169, while recognizing financial constraints, which will not allow the programming of extensive improvements for all highways.

II. ROUTE MANAGEMENT STRATEGIES

REHABILIATION STRATEGY

Route 169 should be maintained as necessary.

Based on functional classification, traffic volumes, and maintenance service levels, Route 169 in District I should be maintained as necessary at its present width and on existing alignment. Portions of the Route may be rehabilitated on an exception basis, when maintaining the facility would be less cost effective than rehabilitating it.

This Route may be resurfaced, as necessary, through the Capital Preventative Maintenance Program (CAPM).

SAFETY AND OPERATIONIAL IMPROVEMENT STRATEGY

One segment of Route 169 has an accident rate slightly greater than 1.5 times (150% of) the expected Statewide average:

DN-169-KP RO.0/5.6 (PM RO.0/3.5)

The above segment of Route 169 has an accident rate slightly exceeding one and one-half times the statewide average based on similar facilities. **Safety improvements at spot locations will be considered as necessary.**

Bridge replacement, storm damage and operational improvement projects will also be considered as necessary. These projects, in addition to safety projects, should be constructed to appropriate State and Federal standards.

In the late 1980's, Caltrans barrier striped two-lane highways to comply with Federally mandated standards. This reduced the number of passing opportunities (and the level of service) on most two-lane State highways, including Route 169. The impact of barrier striping is expected to be less severe on Route 169 than on some other Routes within the District, since few passing opportunities existed prior to barrier striping.

GOODS MOVEMENT STRATEGY

Route 169 is the only major all-weather Route serving the Klamath River Valley. It is used to transport food and other essential supplies to communities along this corridor, and to transport goods (primarily forest products) to market.

Consistent with the relatively low truck traffic volumes on this Route, goods movement improvement emphasis is on Route safety and reliability.

NON-MOTORIZED FACILITIES STATEGY

Shoulders and lanes on Route 169 are relatively narrow in many locations and not well suited to non-motorized traffic.

Route 169 experiences little non-motorized traffic, bicycle and pedestrian activity is generally concentrated in communities along the Route, (e.g. Klamath Glenn, Pecwan, etc.). If needs are identified by regional agencies, the Department will work with them to improve bicycle and pedestrian facilities in the Route 169 corridor.

CORRIDOR PRESERVATION STRATEGY

It is anticipated that Route 169 will remain a conventional 2-lane highway, on existing alignment. No substantial long-term right of way needs are anticipated.

III. ALTERNATIVE CONCEPTS CONSIDERED

No alternative concepts were considered for Route 169 in District 1.

IV. ROUTE ANALYSIS

DESCRIPTION

Route 169 originates at Route 101 near the community of Klamath, approximately 20 miles south of the City of Crescent City, in Del Norte County. The Route proceeds in a generally southeasterly direction, following the north bank of the Klamath River to the community of Klamath Glen. Constructed Route 169 terminates immediately east of the community of Klamath Glenn, resuming in the Humboldt County community of Pecwan. The Route continues to follow the north bank of the Klamath River, contouring through severe terrain to Route 96 near the community of Weitchpec. No public road exists connecting the two constructed segments of Route 169. The Route is approximately 68 kilometers (42 miles) long, approximately 29 kilometers (18 miles) of which has not been constructed. The kilometer post (post mile) description for the two constructed portions of the Route are DN-169-KP RO.0/5.6 (PM RO.0/3.5) and HUM-169-KP 21.2/54.4 (PM 13.2/33.8).

ROUTE PURPOSE

Route 169 is used primarily as a local service route for a few small communities and is often used by motorist for access to the Klamath River for sport fishing purposes. There are several small communities served by Route 169 including Klamath Glen (approximate population 200), and Pecwan (approximately population 70).

ROUTE SEGMENTATION

Route 169 is segmented for System Planning purposes as shown in Table 1 below:

TABLE I
ROUTE 169 SEGMENTATION

SEG #	DN/HUM		DESCRIPTION
	KP	PM	
1	DN-0.0/5.6	0.0/3.5	DN Route 101 to Klamath Glenn
2	DN-5.6/13.7	3.5/8.5	Klamath Glenn to DN/HUM Co. line (unconstructed)
3	HUM-0.0/21.2	0.0/13.2	HUM Co. line to Pecwan (unconstructed)
4	HUM-21.2/54.4	13.2/33.8	Pecwan to Route 96

LAND USE

Land use adjacent to Route 169 in District 1 is expected to remain basically as it is now (primarily National Forest lands with low intensity multiple use). Land use adjacent to Route 169 within the Yurok Indian Reservation is primarily low to moderate density rural residential, with some commercial development. The remainder of the land traversed by Route 169 is generally used for timber production, with scattered residences.

Minimal development is expected, generally in and adjacent to existing communities.

EXISTING FACILITIES

Table II on the following page will summarize existing facility characteristics for the Route 169 corridor in District 1.

TABLE II
EXISTING FACILITY CHARACTERISTICS
ROUTE 169

SEG #	DN/HUM KP	DN/HUM PM	DESCRIPTION	EXISTING FACILITY
1	DN-0.0/5.6	0.0/3.5	DN Route 101 to Klamath Glenn	2C
2	DN-5.6/13.7	3.5/8.5	Klamath Glenn to DN/HUM Co. line	(unconstructed)
3	HUM-0.0/21.2	0.0/13.2	HUM Co. line to Wautec (Johnson's)	(unconstructed)
4	HUM-21.2/54.4	13.2/33.8	Johnson's to Route 96	2C

F = Freeway
E = Expressway
C = Conventional

Functional Classification	Rural Major Collector (DN-169-KP R0.0/13.7 (PM R0.0/8.5)) & (HUM-169-KP 0.0/54.4(PM 0.0/33.8))
Eligible for Federal Funding	Yes - Rural Major Collector
Freeway and Expressway System:	No
Eligible for Scenic Highway Designation:	No
Subsystem of Highways for Extra Legal Loads (SHELL)	No
Surface Transportation Assistance Act (STAA) Trucks Allowed:	No
Strategic Highway Network:	No
National Highway System:	No
Interregional Road System:	No
Public Airports Served:	Andy Mcbeth (General Aviation)
Rail Service	None
Intercity Bus Service:	None
Intersecting State Highway Routes:	101, 96
Park and Ride Lots	None

OPERATING CONDITIONS;

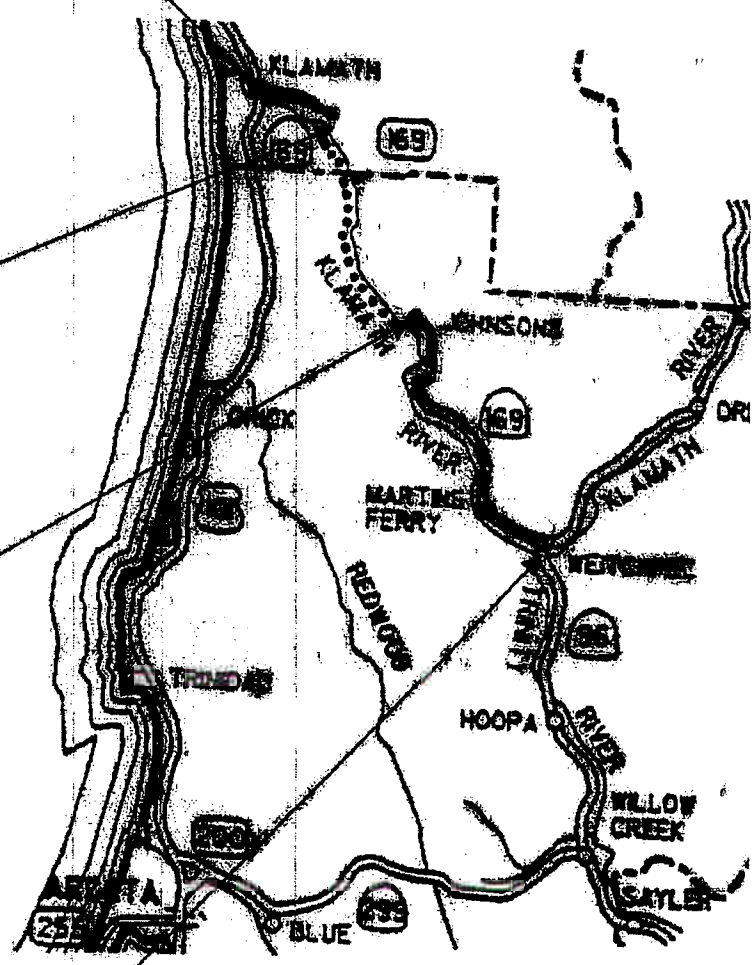
Present and future operating conditions, including traffic volume ranges, level of service, and volume to capacity ratios for both existing and anticipated future conditions for Route 169 are shown on Map I on the following page. Further information regarding specific operating and geometric conditions may be found in Caltrans source documents (e.g., the State Highway Inventory, the State Highway Log, and Traffic Volumes on California State Highways, etc.)

MAP I
PRESENT AND FUTURE OPERATING CONDITIONS
ROUTE 169

DN-169-KP R0.0/5.6
(PM R0.0/3.5)
Terrain: Rolling
Gradeline: Rolling
Existing (1998)
2-lane Conventional
3.6 m lanes
6.7-13.9 m paved
820-1800 AADT
"C" LOS
V/C = 0.21
Accident Rate = greater than 1.5 times the Statewide average
Trucks = 7%-14%
Future (2020)
950-2050 AADT
"C" LOS
V/C = 0.24

DN-169-KP 5.6/13.7
(PM 3.5/8.5) and
HUM-169-KP 0.0/21.2
(PM 0.0/13.2)
Terrain: Mountainous
Existing (1998)
Portion legislatively designated but not constructed as a State Highway

HUM-169-KP 21.2/54.4
(PM 13.2/33.8)
Terain: Mountanious
Gradeline: Rolling
Existing (1998)
2-lane conventional
3.6 m lanes with narrower locations
5-9.8 m paved
220-360 AADT
"C"LOS
V/C = 0.06
Collision Rate: less than 1.5 times the statewide average
Trucks: 9%
Future (2020)
300-400 AADT
"C" LOS
V/C = 0.06



PROGRAMMED IMPROVEMENTS

There are no programmed improvements in the 1998 State Transportation Improvement Program (STIP). The 1998 State Highway Operation and Protection Program (SHOPP) has one roadway rehabilitation project on the Del Norte portion of Route 169 near Klamath Tewer Creek Bridge totaling approximately $ 1.1 million.

V. ENVIRONMENTAL CONSIDERATIONS

Environmental concerns along Route 169 include:

- The Klamath River, a recreational wild and scenic river, provides important instream and riparian habitat. There are sensitive species associated with the river and its tributaries including a variety of federally listed plants and animals. There are old growth redwood groves at several locations along the Route as well as other visual resources associated with Wild and Scenic River Corridors.
- Both the Del Norte and Humboldt County sections of Route 169 have archaeological and cultural significant sites where the local Native American tribes (Hoopa, Karuk and Yurok) gather food and materials necessary for everyday life, sites where their ancestors lived and are buried and sacred sites associated with religious activity.
- Soil stability is a factor for concern along many areas of Route 169. Soil instability may cause slides and slip-outs, which could result in delays and/or road closures.
- The water quality in the Klamath River is of significant concern.

VI. REGIONAL TRANSPORTATION PLANNING

The 1996/98 Humboldt County Regional Transportation Plan authored by the Humboldt County Association of Governments (HCOAG) calls for long term maintenance of State Highway Routes. Maintenance issues were noted as follow:

1. Some improvements are necessary to improve alignment, grade and safety, particularly in substandard areas.
2. Passing lanes are needed in some areas to mitigate Federal barrier striping standards.
3. Capacity improvements are recognized as not likely, except on Route 101.

VII. AREAS OF CONCERN

The following criteria are used to identify areas of concern on Route 169 based on an analysis of level of service and collision history:

1. A segment is considered to be a "level of service concern" if the concept level of service (LOS) will not be achieved under present or future traffic conditions, or the segment operates at capacity during peak hour.

2. A segment is considered to be a "safety concern" if the total accident rate for a five year period for that segment exceeds one and one-half times the Statewide average for similar facilities.

Based on these criteria, one segment was identified as an area of concern, due to collision history: HUM-169-KP RO.0/5.6 (PM RO.0/3.5). The District has an established accident surveillance and monitoring process, which investigates and recommends safety improvements for specific locations with historic accident concerns as they are identified.

VII . IMPROVEMENTS NECESSARY TO ACHIEVE THE ROUTE CONCEPT

Consistent with the route concept of Maintain Only with some rehabilitation, no new facility improvements will be required. Safety improvements should be made, as necessary, and operational improvements should be considered on a limited basis.

Caltrans will enter into cooperative partnerships with any Federally recognized governments (Hoopa, Karuk and Yurok tribes) when road improvements are necessary where the State Highway System passes through tribal lands.

VIII. TRANSIT AND HIGH OCCUPANCY VEHICLE (HOV) CONSIDERATIONS

Low population densities make it difficult to provide cost-effective transit services for Route 169. Due to the rural nature of Route 169, and relatively low peak hour traffic volumes during commute hours, no HOV considerations are necessary.

X. ACCESS MANAGEMENT

Access management involves managing where vehicles are allowed to enter the highway, to improve highway operations and reduce accidents.

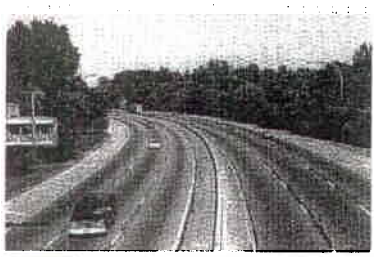
While some access openings may have less than desirable sight distance, access management is generally not a concern along most of Route 169. Further, with little change in land use anticipated, access management is not likely to be a future concern.

XI. ADOPTIONS, RESCISSIONS AND RELINQUISHMENTS

New or changed highway routings generally require adopting a new route and rescinding the previously adopted route. The Route may also be relinquished to a city, county or other public entity.

No significant adoptions, recessions, or relinquishments are anticipated on Route 169 in District 1.

APPENDIX A
Level of Service (LOS)

LOS		Description of Typical Traffic Conditions	Delay	Service Rating
A		Highest quality of service. Free traffic flow, low volumes and densities. Little or no restriction on maneuverability or speed, and a high level or comfort and convenience.	None	Excellent
B		Stable traffic flow – speed becoming slightly restricted. the presence of others in the traffic stream begins to be noticeable. Low resistance on maneuverability.	None	Very Good
C		Stable traffic flow, but less freedom to select speed, change lanes or pass. Comfort and convenience Decreasing as density increases.	Minimal	Good
D		Approaching unstable flow. Speeds tolerable, but subject to sudden and considerable variation. Reduced maneuverability, driver comfort and convenience.	Minimal	Adequate
E		Unstable traffic flow with rapidly fluctuating speeds and flow rates. Short headways, low maneuverability and low driver comfort and convenience.	Significant	Fair
F		Forced traffic flow. Speed and flow may drop to zero with high densities. Queues tend to form behind such locations since arrival flow exceed traffic discharges.	Considerable	Poor